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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,656	12/31/2003	Xianping Ge	0026-0068	2826

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EXAMINER

LIE, ANGELA M

ART UNIT	PAPER NUMBER
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2163

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/748,656	Applicant(s) GE ET AL.	
	Examiner Angela M. Lie	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3, 14, 16-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Heumann (US Publication 2001/0034660).

As to claims 1, 20, 22 and 27, Heumann discloses a method for ordering documents (paragraph 15), comprising: receiving a search query (Figure 2, element 21, paragraph 10); determining a location associated with the query (Figure 2, element 22); determining a location sensitivity score that reflects a location sensitivity associated with the query (Figure 2, step 24); determining topical scores for a set of documents based, at least in part, on the query (paragraphs 12 and 15, i.e. desired product); determining distance score for each document in the set of documents based, at least in part, on a document location associated with the document, and the location associated with the query, and the location sensitivity score (paragraph 15, wherein the result also can be ranked based on the distance between the provider and the user); and ordering the set of documents as a function of both the topical scores of the set of

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documents and the distance scores of the set of documents (Figure 2, element 26 and paragraph 16).

As to claim 3, Heumann discloses a method wherein the function depends on the topical score and the distance score of each document in the set of documents (Figure 2, steps 24 and 25 and paragraph 13).

As to claim 14, Heumann discloses a method wherein the ordering the set of documents includes: generating an overall score for each of the documents in the set of documents based (paragraph 14, since both product and distance criteria are taken into account when listing result, there has to be some sort of score allowing to rank the best match on the very top of the resulting list), at least in part, on the topical score and the distance score, and ordering the set of documents based, at least in part, in the overall scores (paragraphs 13 and 15).

As to claim 16, Heumann discloses a method wherein the location sensitivity depends, at least in part on at least one of the keyword, a topic, the query, the location associated with the query, and a user issuing the query (Figure 2, step 22, paragraph 14).

As to claim 17, Heumann discloses a method wherein the documents are web pages (paragraph 19, wherein most up to date prices for searched items need to be accessed from online source in order to keep them current).

As to claim 18, Heumann discloses a method wherein the documents are advertisements (paragraph 17).

As to claim 19, Heumann discloses a system for ordering documents (paragraph 15), comprising: means for determining a location associated with a

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query (Figure 2, element 22); means for determining topical scores for a plurality of documents based, at least in part, on the query (paragraph 13, Figure 2, element 23); means for identifying one or more documents from the plurality of documents (paragraph 15, multiple product providers); means for determining a distance score for each of the identified documents using document locations associated with the identified documents based, (paragraph 14) at least in part, on the topical score and the distance score; and means for arranging the identified documents based, at least in part, on the overall scores (paragraph 14, figure 2, elements 24 and 25).

As to claim 21, Heumann discloses a server wherein the ranking component is further configured to order the set of documents based, at least in part, on ranking of the set of documents (paragraph 15).

As to claim 23, Heumann discloses a method wherein the determining a location sensitivity of the identified topic includes determining a degree to which location is relevant for the identified topic (paragraph 14, since all the providers carry exact desired product, the shortest distance is selected, if the provider would not carry the wanted item then this selection would not be significant even though the location might be the closest).

As to claim 24, Heumann discloses a method wherein the location sensitivity of the identified topic is determined based, at least in part, on user behavior with regard to prior search (paragraph 15, once search is contacted the user can choose to rank the providers based on the price, so it is based on the prior search (i.e. search already completed)).

As to claim 25, Heumann discloses a method further comprising:
determining a geographic range for the identified topic when the identified topic is determined to be location sensitive (paragraph 15, i.e. distance).

As to claim 26, Heumann discloses a method wherein the ranking at least one document in the set of documents is based, at least in part, on the location associated with the at least one document and the geographic range for the identified topic when the identified topic is determined to be location sensitive (paragraphs 14 and 15).

As to claim 29, Heumann discloses the method comprising: ranking the set of potential advertisements based, at least in part, on the comparing; and wherein the ordering the set of potential advertisements includes re-ranking at least some of the set potential advertisements (paragraph 15, last two lines).

As to claim 30, Heumann discloses the method wherein the location associated with the target document is based, at least in part, on a user that accesses the target document (paragraph 14, figure 2, step 22, wherein in order to determine desired or nearest location, the location of the user has to be first determined).

As to claims 28 and 31, Heumann discloses a method and a system comprising: analyzing the target document to identify a topic for the target document (paragraphs 15 and 17, topic could be for instance name of the provider) and a location associated with the target document (paragraph 9); identifying targeting information for a plurality of advertisements (paragraphs 15 and 17, i.e. price), ; comparing the targeting information for plurality of

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advertisements (paragraph 15, comparing prices); determining a distance score for at least one advertisement in the set of potential advertisements using an advertiser location associated with the one advertisement and the location associated with the target document (paragraph 15); ordering the set of potential advertisements based, at least in part, on the distance score of the at least one advertisement; and presenting at least some of the ordered set of potential advertisements (paragraphs 14 and 15) .

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heumann (US Publication 2001/0034660) in the view of Berkan et al (US Publication 200300743353).

As to claim 4,12 and 13, Heumann teaches all the limitations disclosed in claim 1, however he does not explicitly teaches the method wherein the topical score is higher for more relevant ones of the documents and a distance score is higher for ones of the documents with a document location nearer to the location associated with the query. Berkan teaches an answer retrieval technique wherein the results are ranked based on the score i.e. the most top result having the

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highest scores (paragraphs 42 and 150). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to rank results in the descending order, wherein the top position would have the highest score, as taught by Berkan, because majority of match calculating algorithms lead to positive result, wherein satisfying each matching criteria increases the overall matching score. Therefore, if the document matches the query very well, it is certain to expect that the score would be also high. Once the score is determined, the resulting documents can be put in order depending on their matching scores, therefore it would create additional complexity to reverse the matching scores so as to place the documents in the ascending order. Such an action based on the additional calculations requirement would slow down the processing time.

Note regarding claim 12, ranking the results based on the closest distance (paragraph 14).

Note regarding claim 13, ranking based on the information found in the result, for instance price (paragraph 14), wherein the lowest price has the highest score (i.e. is ranked first).

As to claims 5 and 6, Heumann teaches the method wherein determining distance score for the document includes calculating a distance from the document location to the location associated with the query (paragraph 14). Heumann does not explicitly teach however, that the function used for the calculation of the score is monotonic. Berkan teaches the answer retrieval technique wherein score calculating function shows the monotonic behavior (Figs

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8A-8D). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use a monotonic function as taught by Berkan, in Heumann searching algorithm because this would simplify calculations (constant polarity) and therefore minimize the processing time.

As to claims 7-11, Heumann teaches all the limitations disclosed in claim 1, however he does not explicitly teach document ordering comprising weighting the topical and distance scores. Berkan teaches the retrieval technique wherein weightings are used based on the importance or the relevance of the result (paragraph 41). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use weightings to determine more accurately the relevance of the results, because it is well known and commonly used technique for matching query with the results, in order to find most relevant art or documents.

Note regarding claim 9, if the weights would not vary, there would be no ranking.

Note regarding claim 10, query allows to obtain results, so indirectly weight depends on query/keyword (i.e. weight result, if query results in a lot of well matching documents, overall document weighting will also be higher).

Response to Arguments

5. Applicant's arguments filed November 22, 2006 have been fully considered but they are not persuasive.

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6. With respect to the applicant's assertion on page 12, stating that Heumann does not disclose determining a location sensitivity score that reflects location sensitivity associated with the query, the examiner disagrees. Heumann teaches in paragraph 25 that the score is calculated based on location, and further this location is associated with the query because the reference is brought up based on the used query. The applicant seems to argue that the Heumann does not teach determining of a distance score because he simply determines the distance from a user's location to the location of product provider. The examiner would like to note that the information about the location are part of the reference obtained via search, and based on this information the documents are ranked, therefore the examiner maintains that Heumann teaches distance score based on the document location.

7. Furthermore, the examiner would like to note that the applicant did not clearly claim the location of a server on which document resides, instead the applicant used the phrase "document location", which is not clearly defined in the specification or the claim itself, therefore the examiner maintains that this phrase could refer to the location displayed within the document.

8. With respect to the applicant's assertion on page 15, first paragraph, stating that Heumann does not teach comparing targeting information to the topic for the target document to identify a set of potential advertisements, the examiner disagrees. It is clear that in order to establish the best deal i.e. the lowest price for a wanted item, the large number of prices has to be compared; therefore the lowest price has to be set so it can be matched against remaining prices (at least

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till the next lower price is found). The examiner considers this lowest price to be a topic of a document.

9. With respect to the applicant's argument on the following page, last paragraph, stating that Heumann does not teach presenting at least one of the ranked set of potential advertisements within a target document, the examiner disagrees. In the paragraph 33, Hemann teaches the tracking list which lists the best results along with the distance information, and those information (price and location) are considered potential advertisements within a target document (i.e. document from which the obtained information come from).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ryu (US Patent 6377961) discloses a method for displaying internet search result wherein the method comprises the steps of obtaining the query, specifying location of the query and the searched destination, and combining both the destination score and the document's topic score in order to generate final list of results. This reference does not teach explicitly that all the documents are ranked according to their score.
- Liechty et al (US Publication 20030078924) discloses a probabilistic location estimation which applies the score to each result based on the location and assigned weight for data point or result.

Inquiry

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

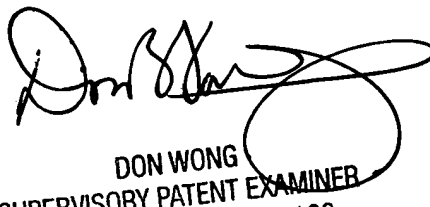
14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Angela M Lie


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